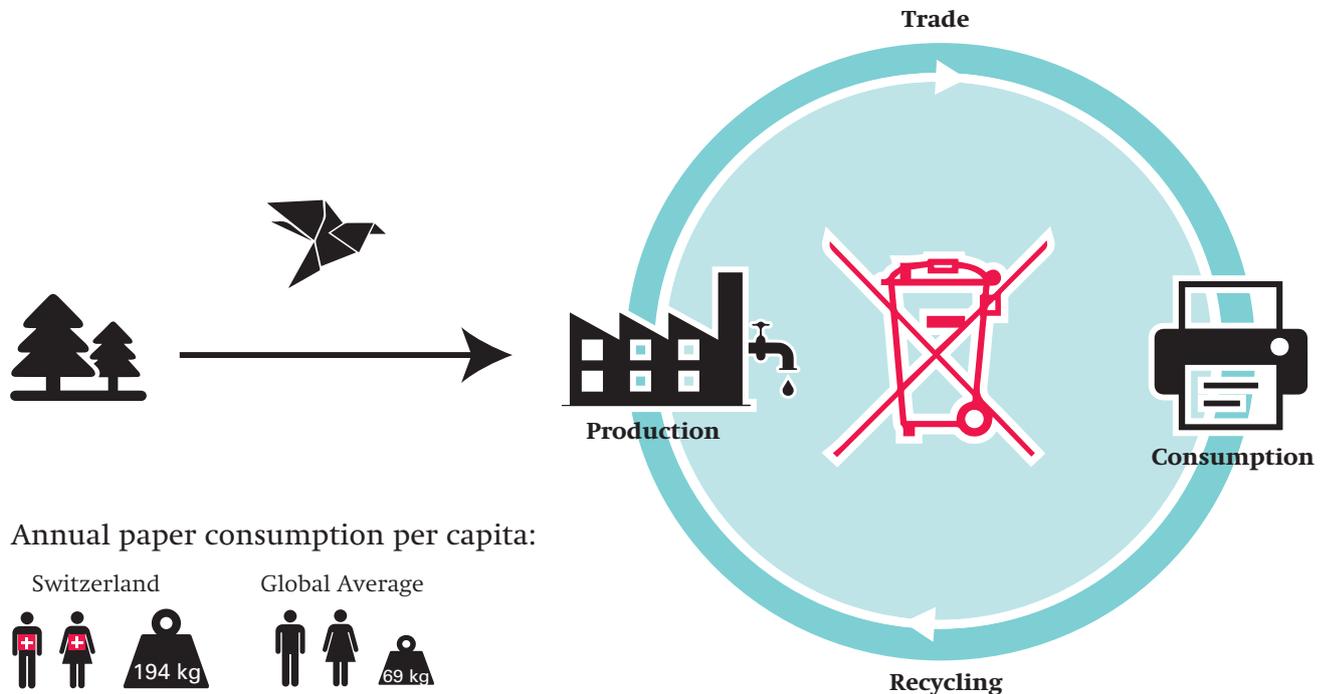


Recycled Paper

Print wisely



In Switzerland, per capita paper consumption amounts to around 194 kg, the global average is 69 kg ([WWF Schweiz, 2016](#)). Paper consists of 80% celuslose, which is being extracted from the wood with high energy and water consumption ([Forum Ökologie und Papier \(FÖP\), 2012, S. 12-13](#)). Switzerland itself has no pulp mills, which is why all pulp for the production of virgin fibre paper is imported ([FÖP, 2012, S.8](#)). As a consumer you therefore make a big contribution if you only use recycled paper and collect wastepaper yourself.

Below are some tips to help you save costs and reduce resource consumption:

1. Use paper sparingly so that environmental pollution does not occur in the first place.
2. Prefer recycled products with the „Blue Angel“ label.
3. Only use recycled paper. Recycled paper saves resources (wood, water, energy), reduces waste and harmful emissions (greenhouse gases, chemicals).
4. Recycled paper works on all printers and is durable for around 100 years.
5. Collect waste paper so that paper can be recycled.

Production of recycled paper

Once produced, the pulp can be reused up to six times. In paper recycling, waste paper is dissolved with water (FÖP, 2012, S. 12). With the help of chemicals, such as caustic soda, hydrogen peroxide or fatty acids, the waste paper is decoloured so that the new paper gets a lighter colour. Prining inks combine with the soap supplied and can be skimmed off with the foam. The pulp is bleached in a further step. Overall, fewer and more harmless chemicals are being used in the recycling of waste paper than in the extraction of pulp from wood (FÖP, 2012, S. 14).

Ecological assessment

Studies clearly demonstrate that recycled paper has a better ecological balance than fresh fibre paper:

- The production of recycled paper consumes 75% less water than the production of virgin fibre paper (SCS Global Services, 2015, S.8).
- In the production of one tonne of recycled paper, as much CO₂ is saved as an average car emits over 1000 km (Institut für Energie- und Umweltforschung Heidelberg GmbH (IFEU), 2006, S. 3).
- The impact of recycled paper on climate change and ocean acidification is less than 1% of the impact of virgin fibre paper (SCS Global Services, 2015, S.8).
- By reducing the demand for fresh wood, fewer forests have to be converted into wood plantations (umweltbundesamt.de 2000, S. 7).
- It is much more environmentally friendly to recycle waste paper than to burn it to generate energy (umweltbundesamt.de, 2000, S. 7).

We recommend the following order of purchase:

- Recycled paper with the Blue Angel label, FSC Recycling or Coop-Oecoplan made of 100% recycled fibres.
- FSC 100%: Paper is 100% virgin fibre from FSC-certified forests.
- FSC Mix: Mixture of FSC fibres, fibres from controlled sources and/or recycled fibres. Paper with the FSC logo comes from forests managed in an environmentally and socially responsible manner or from recycled fibres.
- Fresh fibre paper without label.

High quality requirements are met

- Recycled paper with the Blue Angel can be used without restrictions on all printers and is recommended by leading manufacturers of printing and copying machines (Initiative Pro Recycling-papier (IPR), 2015 S. 12).
- Blue Angel copy papers have been tested for technical suitability and meet the DIN 12281:2003 standard. Their service life is several hundred years and thus meets the highest requirements for archivability according to LDK 24-85 and DIN 6738:1999 (FÖP, 2012, S. 22).

Colour acceptance

Jung et al. (2012) have shown that a significantly higher colour range of colour shades is accepted for recycled paper if it is identified as such. This means that recycled paper would not have to be very bleached (Jung et al. 2012 S.280). Nowadays, however, recycled paper is often bleached to such an extent that it cannot be distinguished from virgin fibre paper. It is therefore quite possible that many would not even notice a change, but with appropriate communication, there would certainly be a high level of acceptance.

Best Practice Biozentrum

Since 2011, only recycled copy paper has been used at the Bio-center. With a consumption of 1,500,000 sheets of recycled paper instead of fresh fibre paper, the Biocenter saves per year:

- 16'500 kg wood
 - 187'500 litres of water
 - 22'500 kWh electricity
 - 9kg hardly degradable substances
- (figures were calculated based on FÖP, 2012, S. 16)

Paper used: [BalancePure](#)

- 100 % Recycled fibres, FSC, EU-Ecolabel, 150 CIE (ISO 11475).
For all copiers, lasers, fax, inkjet and digital printing systems
- Price: 3.95 sFr for 500 sheets

The change was accepted without reservation.

Price Comparison (per 500 sheets)

The following paper can be ordered from the [Material Center of the Department of Education of the Canton of Basel-Stadt](#) for the University of Basel:

100% Recycled Papier A4: Evercopy Premium, EU-Ecolabel, Blue Angel Label, 80g

- Till 200 packs: 4.95 per pack
- From 200 packs: 4.60 per pack
- From 1000 packs: 4.50 per pack

Virgin fibre A4: Pioneer, bleached, FSC, EU-Ecolabel, 75g

- Till 200 packs: 4.10 per pack
- From 200 packs: 3.85 per pack
- From 1000 packs: 3.80 per pack

Other examples

Since 2014, the City of Zurich has procured exclusively recycled paper for its administrations which was certified with the Blue Angel ([stadt-zuerich.ch, 2014](#)).

In 2014, the city of Erlangen was awarded the title «Germany's most recycled paper-friendly city» by purchasing exclusively recycled paper for all departments, including schools and the in-house print shop, which is marked with the Blue Angel ([Umweltbundesamt.de, 2014](#)).

“Think further ...” stands for sustainable thinking, planning and acting at the University of Basel. More information can be found at [Sustainability at the University of Basel](#)